

Claims

1. A device for stacking sheet-shaped materials on a sheet stack comprising:
at least one deflecting element rotatably mounted above the sheet stack and in the area of the leading edges of the stacked sheet-shaped materials and having at least one deflecting fin; and,
a controller for driving the deflecting element to rotate in a manner such that when one deflecting fin is in contact with a topmost sheet-shaped material of the sheet stack that has already been stacked, the leading edge of the next sheet-shaped material to be stacked is deflected until the deflecting element rotates far enough after stacking the next sheet-shaped material so that a deflecting fin is in contact with the sheet-shaped material lying topmost.
2. A device according to Claim 1, wherein the sheet stack is limited in transport direction by a stop, whereby the stop exhibits a radius in the area of the upper edge of the stack of the sheet-shaped materials stacked opposite the transport direction.
3. A device according to Claim 2, wherein the at least one deflecting element is congruent with the radius of the stop.
4. A device according to claims 1, wherein at least one deflecting fin has a side element and wherein the surface of the side elements is formed at least in sections in such a way that during rotation of the deflecting elements the surface of the side elements lowers the leading edge of the topmost sheet-shaped material onto the stack of sheet-shaped materials.

5. A device according to claim 4, wherein at least one side element exhibits a tab following the deflecting fin in rotation direction of the deflecting element, whereby the dimensions of said tab suppress a spreading of the sheet-shaped materials already stacked in the area of the leading edges of sheet-shaped materials.
6. A device according to claim 4, wherein the surface of at least two side elements is formed in such a way that it provides a vertical stop for the deflected sheet-shaped material.
7. A device according to Claim 4, wherein the surface of at least one of the outer side elements is formed in such a way that it exhibits a recess in the area of the tip of the deflecting fins.
8. A device according to Claim 1, wherein at least two deflecting elements are arranged essentially symmetrical to the center line of the transport movement.
9. A device according to Claim 8, wherein the outermost deflecting elements are mounted in active connection with a threaded shaft exhibiting two opposing threads so that they can slide laterally.
10. A device according to one of Claim 8, wherein the outermost deflecting elements are mounted so that they can slide dependent on the dimensions of the sheet-shaped materials.
11. A device according to Claim 10, further comprising a measuring unit for measuring the position of the outermost deflecting elements.

12. A device according to one of Claim 1, wherein the tip of the deflecting fins is curve shaped.
13. A device according to one of Claim 1, further comprising at least one driving fin mounted so that it can rotate above the stack of sheet-shaped materials in such a way that during rotation of the driving fin, the end of the driving fin comes in contact with the topmost sheet-shaped material on the stack and moves this topmost sheet-shaped material in the transport direction.
14. A device according to Claim 13, wherein at least two driving fins are provided, whereby at least one driving fin is more elastic and longer than at least one other driving fin.
15. A device according to one of Claims 1, further comprising at least one hold-down element disposed above the stack of sheet-shaped materials to guide the next sheet-shaped material onto the stack of sheet-shaped materials.
16. A device according to Claim 15, further comprising a measuring unit and wherein the hold-down element further comprises a hold-down lug that extends into the measuring unit, whereby the measuring unit determines the height of the stack of the sheet-shaped materials.
17. A device according to Claim 16, further comprising a height-adjustable stacking element on which the stack of sheet-shaped materials is deposited and a controller which uses the signal from the measuring unit to maintain the position of the topmost sheet-shaped material essentially constant using the height-adjustable stacking element.